EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows.

The Abstract has been changed to:

-- There are provided a carbon fiber precursor fiber bundle which permits easy bundling of a plurality of small tows into one bundle, is provided with a dividing capability to divide into the original small tows spontaneously at the time of firing, and is suitable for obtaining a carbon fiber that is excellent in productivity and quality, and a production method and a production apparatus of the carbon fiber precursor fiber bundle, and an excellent carbon fiber and a production method thereof. ~~A carbon fiber precursor fiber bundle that has a degree of intermingle of I m or less between small tows, consists of substantially straight fibers without imparted crimp, a tow of which straight fibers has a moisture content of less than 10% by mass when housed in a container, and has a widthwise dividing capability to maintain a form of a single aggregate of tows when housed in a container, taken out from the container and guided into a firing step, and to divide into a plurality of small tows in the firing step by the tension generated in the firing step. A production method thereof.~~ A production apparatus of a carbon fiber precursor fiber bundle, comprising an intermingling device

that comprises a yarn channel having a flat rectangular section through which a plurality of small tows can pass in a manner adjacent to each other and a plurality of air jet holes disposed with predetermined intervals along the long side direction of the flat rectangle and having the openings thereof in the yarn channel. ~~A carbon fiber using the precursor fiber bundle and a production method thereof.~~ --

2. The Abstract has been shortened to 150 words or less, as indicated above, in order to comply with MPEP 608.01(b).

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy B. Vanatta whose telephone number is 571-272-4995. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Welch can be reached on 571-272-4996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Amy B Vanatta/
Primary Examiner
Art Unit 3765